ABSTRACT

Dietary fibers have their properties modified by applying a shock wave to a dispersion of the fibers in a fluid carrier. Pressure from a piston, in either a single or a series of compressive strokes or pulses exerted on the dispersion applies the shock wave. Increasing the effect of cavitation caused by the shock wave can enhance the modified properties of the fibers. The resulting pressure treated dietary fiber exhibits reduced calories, higher insoluble fiber content, reduced moisture absorption properties, and greater uniformity from batch to batch.